

**A NEW SPECIES OF *BACKHOUSIA* HOOK. & HARVEY
(MYRTACEAE) FROM QUEENSLAND AND A REAPPRAISAL
OF *BACKHOUSIA FLORIBUNDA* A.J. SCOTT**

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Summary

A new species of *Backhousia*, *B. kingii*, is described and a key to the species of the genus is provided. *Backhousia floribunda* A.J. Scott is transferred to *Austromyrtus*.

Backhousia kingii has been known for some years from several, mostly infertile, specimens in the Queensland Herbarium. In recent years a number of flowering and fruiting collections of this species have been sent to the Herbarium for identification. A study of these collections has confirmed that the taxon is specifically distinct from *Backhousia sciadophora* F. Muell.

***Backhousia kingii* Guymer, sp. nov.** affinis *B. sciadophorae* sed foliis minoribus ovatis vel oblanceolatis attenuatis et hypanthiis pedicellis que pedunculis que pubentibus differt. **Typus:** Queensland. PORT CURTIS DISTRICT: Along Moore Ck, 23°20'S, 150°33'E, ca 2 km N of Rockhampton, 14 April 1985, E.R. Anderson 3976 (holo: BRI).

Trees 8-17(-20) m high, d.b.h. 16-40 cm; bark pale brown or grey, smooth, shed in strips. Branchlets terete, slightly fluted or angular near apex, puberulent with pale brown hairs. Leaves opposite; lamina ovate, oblanceolate or obovate, 2.2-5.7 cm long, 1.2-2.9(-3.5) cm wide; apex obtuse or rounded; base attenuate; midvein shallowly channelled above, raised below; secondary veins 5-7 pairs, slightly raised below, at 28-46° to the midvein, looping well inside the margin; tertiary veins inconspicuous; oil glands dense, conspicuous; petioles puberulent, glabrescent, channelled above, 1.8-4 mm long. Inflorescences axillary, consisting of 1 or 2 (or 3) dichasial clusters of 8-20 flowers, 2-5 cm long; peduncles puberulent (hairs erect, simple, ca 0.1 mm long), flattened, 6-23 mm long; pedicels puberulent, filiform, terete, 6-13 mm long. Flowers white. Calyx lobes 4 (or 5), concave, obtuse or rounded, pubescent inside, sparsely puberulent outside, persistent, outer pair 0.7-1.1 mm long, 0.7-1.6 mm wide; inner pair 1.8-2.1 mm long, 1.7-2.2 mm wide. Petals 4, orbicular, sparsely puberulent, 1.8-2.3 mm long, 1.8-2.2 mm wide. Stamens 30-37; filaments glabrous, free or occasionally 2 connate, 3.7-7.5 mm long; anthers broadly oblong to globular with a small apical gland, 0.25-0.35 mm long. Hypanthium puberulent outside, pubescent inside with white hairs, 1.4-2 mm long, 1.5-2 mm diameter. Ovary 2-locular, connate to bottom of hypanthium, pubescent, 1-1.2 mm diameter; ovules 2-4 per loculus, on axile placentas; style pubescent at base, glabrous above, recurved until after anthesis, finally erect, persistent, 4.5-6 mm long; stigma slender. Capsule included in persistent hypanthium, dry, indehiscent, turbinate, bearing the 4 persistent spreading calyx lobes, puberulent, 1.1-1.8 mm long, 1.4-2.1 mm diameter. Seeds 2-4 per loculus, angular, smooth with a fine reticulate pattern, fawn or pale brown, 1.6-2 mm long. **Fig. 1.**

Specimens examined: Queensland. PORT CURTIS DISTRICT: 14.4 miles [24 km] N of Rockhampton, Aug 1963, Speck 1693 (BRI); Along Moore Ck, ca 2 km N of Rockhampton, 23°20'S, 150°33'E, Apr 1985, Anderson 3976 (BRI); Rockhampton, without date, Thozet 222 (MEL); Gracemere & Table Mtn, May 1869, O'Shanesy 1062 (MEL); Gracemere, Aug 1868, O'Shanesy 4 (ser. 12) (MEL). BURNETT DISTRICT: Cania Gorge, 24°30'S, 151°00'E, May 1977, Olsen & Byrnes 3537 (BRI,NSW); State Forest 95, Minerva (Cpt. 3 South L.A.), near Kalpowar, 24°40'S, 151°10'E, Oct 1983, Epp AQ396149 (BRI); Kalpowar Scrub Reserve 95, Jan 1935, Menadue s.n. (BRI); Burnett Ra., Kalpowar R.95, Aug 1957, Webb & Tracey 3303 (BRI); Eidsvold, Jun 1923, Bancroft s.n. (BRI). WIDE BAY DISTRICT: Bingera Plantation, 16 km W of Bundaberg, 24°50'S, 152°10'E, May 1983, Sarnadsky AQ339626 (BRI,CANB,MO,K,SP,NA,NY,LE,KW,B,AAU,BISH); Coringa Scrub, near Burnett R., NW of Biggenden, 25°20'S, 151°50'E, Jan 1980, Randall 7 (BRI); Bingera, 15 km SW of Bundaberg, 24°50'S, 152°10'E, Nov 1981, Sarnadsky 72 (BRI).

Distribution: The species is endemic in subcoastal central eastern Queensland from just north of Rockhampton (23°20'S) to Bingera (24°55'S). It is geographically isolated from the nearest Queensland population of *B. sciadophora* which is 180 km further south at Imbil.

Habitat: *B. kingii* occurs in notophyll or microphyll vine thickets from near sea-level to 400 m. The species often forms small pure stands in remnant patches of vine thicket as a result of suckering.

Flowering period: January to May, with one flowering specimen collected in November. Flowering appears to be irregular and dependent on favourable climatic conditions.

Fruiting period: Fruiting specimens have been collected in January, June and October.

Affinities: The species is closely related to *B. sciadophora* but differs in its smaller ovate to oblanceolate attenuate leaves and its puberulent hypanthia, pedicels and peduncles.

Etymology: Named in honour of Dr J. King, author and historian, who organised the First Fleet Re-Enactment to celebrate Australia's bicentenary.

Key to Species of *Backhousia*

1. Pedicels filiform (*ca* 0.25 mm diameter), (6-)8-18 mm long 2
 Pedicels slender (*ca* 0.5 mm diameter), 0.5-8 mm long 5
2. Leaves lemon-scented, lanceolate, acuminate; branchlets and inflorescences pubescent. SE Qld **B. citriodora** F. Muell.
 Leaves not lemon-scented, orbicular, ovate, obovate, or oblanceolate, obtuse; branchlets and inflorescences puberulent or glabrous 3
3. Inflorescences of 3-11 dichasial clusters, 5-7 cm long; inner calyx lobes 4-5 mm long **B. hughesii** C. White
 Inflorescences of 1 or 2 (or 3) dichasial clusters, 3-5 cm long; inner calyx lobes 2-2.5 mm long 4
4. Pedicels, peduncles and hypanthia glabrous; leaves orbicular to ovate (4-)5-7.8 cm long, 2.5-5.3 cm wide. NE NSW, SE Qld **B. sciadophora** F. Muell.
 Pedicels, peduncles and hypanthia puberulent; leaves ovate, obovate or oblanceolate, 2.2-5.7 cm long, 1.2-2.9 cm wide. Central E Qld **B. kingii** Guyermer
5. Inflorescences terminal and axillary 6
 Inflorescences axillary 7
6. Leaves aniseed-scented, lanceolate to narrowly lanceolate, apex acuminate, 1-2.2 cm wide; inflorescences and flowers glabrous; calyx lobes 1-2 mm long. NE NSW **B. anisata** Vickery
 Leaves not aniseed-scented, ovate-lanceolate or ovate-oblong, apex obtuse, 2.5-5 cm wide; inflorescences and flowers puberulent; calyx lobes 4-6 mm long. NE Qld **B. bancroftii** Bailey & F. Muell.
7. Leaves ovate to ovate-lanceolate, 2.2-6.5 cm long, 0.9-4 cm wide; inflorescences 2.3-5 cm long; calyx lobes \pm equal, 4-7 mm long in fruit. E NSW, SE Qld **B. myrtifolia** Hook. & Harvey
 Leaves lanceolate to linear-oblong, 1.7-3.4 cm long, 0.4-1 cm wide; inflorescences 0.8-2.4 cm long; inner calyx lobes larger than outer, 2-3 mm long in fruit. E Qld, N NSW **B. angustifolia** F. Muell.

A reappraisal of *Backhousia floribunda*

Scott (1984) described a new species in *Backhousia* from southern New Guinea, thereby extending the distribution of the genus outside Australia. The sole collection (*Pullen* 7510) on which Scott's name, *Backhousia floribunda* A.J. Scott, was based consists

only of flowering material. Examination of this material and replicates at BRI and G has revealed that *B. floribunda* is neither referable to *Backhousia* nor to the subfamily Leptospermoideae. The inflorescence structure and completely inferior ovary preclude its placement in *Backhousia*. Furthermore, the type collection was found to be conspecific with *Austromyrtus* material (Gray 4275, 4281, and Hyland 10289; all BRI, QRS) from Cape York Peninsula which has succulent, not dry, fruits. *Backhousia floribunda* is therefore clearly a member of the subfamily Myrtoideae and belongs in the genus *Austromyrtus* as presently circumscribed. The consequential new combination for this plant is made below and a description of its fruits is given based on the cited Australian material.

***Austromyrtus floribunda* (A.J. Scott) Guymer, comb. nov.**

Backhousia floribunda A.J. Scott, Kew Bull. 39: 659 (1984). **Type:** Kwinia Ck, near Ellangowan Is., middle Fly R., Papua, 21 Oct 1967, R. Pullen 7510 (holo: K; iso: BRI, G, L).

Berry globular, glabrous, mauve to black, 6–7 mm diameter. Seeds 1 or 2, reniform, smooth, fawn, 3.5–4 mm long.

Acknowledgement

I would like to thank Mr W. Smith for providing the illustration of the new species.

Reference

SCOTT, A.J. (1984). Two new species of Myrtaceae from New Guinea. *Kew Bulletin* 39: 659.

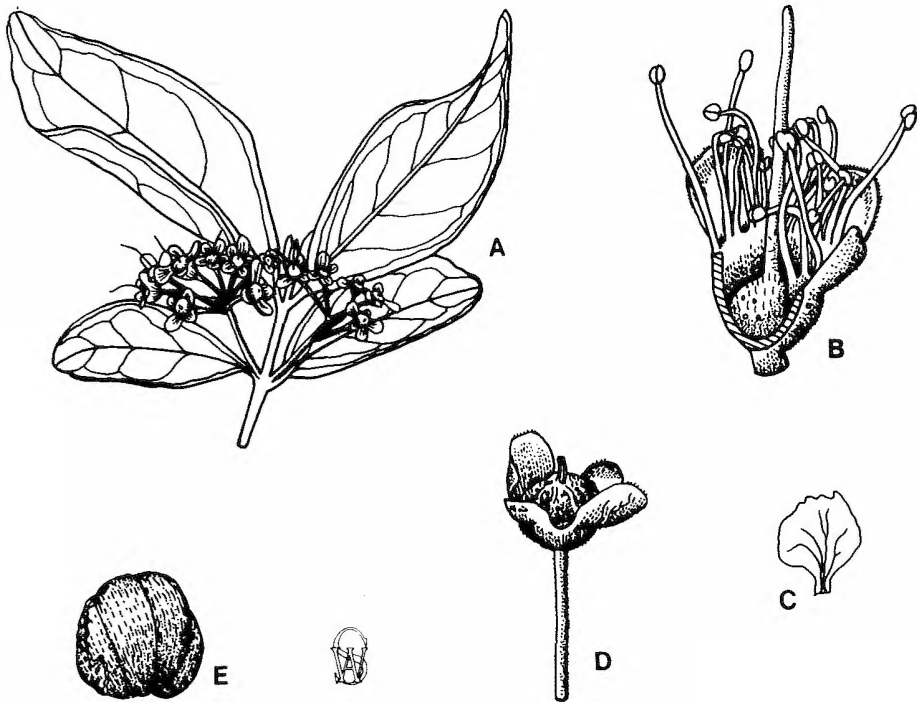


Fig. 1. *Backhousia kingii*: A. young fruiting branchlet $\times 1.5$. B. flower with petals and front sepal removed $\times 8$. C. petal $\times 8$. D. fruit $\times 4$. E. seeds $\times 8$. A Forster 3321; B,C Sarnadsky 72; D,E Bancroft AQ93670.